

Multiprotocol Ethernet/Fast Ethernet Print Server

Hardware Users Guide

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dafür, daß diese Öffnungen nicht abgedeckt werden.

8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
9. Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.
10. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
11. Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.
12. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
13. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. Elektrischen Schlag auslösen.
14. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
15. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
 - a – Netzkabel oder Netzstecker sind beschädigt.
 - b – Flüssigkeit ist in das Gerät eingedrungen.
 - c – Das Gerät war Feuchtigkeit ausgesetzt.
 - d – Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
 - e – Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
 - f – Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
16. Bei Reparaturen dürfen nur Originalersatzteile bzw. den Originalteilen entsprechende Teile verwendet werden. Der Einsatz von ungeeigneten Ersatzteilen kann eine weitere Beschädigung hervorrufen.
17. Wenden Sie sich mit allen Fragen die Service und Reparatur betreffen an Ihren Servicepartner. Somit stellen Sie die Betriebssicherheit des Gerätes sicher.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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Print Server Features

HyperNet Fastprint print servers improve network printing services in three ways:

- ◆ The HyperNet Fastprint picks up the workload of managing print file traffic to its connected printers. This provides workload relief to your file servers, and allows the file servers' full capacity to be used for file access or other direct services to network users. On peer-to-peer networks, workstations can print directly to the HyperNet Fastprint without increasing the load of another workstation or server.
- ◆ The HyperNet Fastprint's parallel printer ports are IEEE 1284 compliant high-speed bidirectional ports, which can transmit to high-speed laser printers much faster than a PC's parallel printer port. High-speed laser printers connected to the HyperNet Fastprint's parallel ports can be operated at full their capacity.
- ◆ Because the HyperNet Fastprint is very portable and inexpensive compared to a PC-based print server, and because the HyperNet Fastprint connects to your file servers through the network, printers can be deployed to locations of maximum convenience to users.

The HyperNet Fastprint offers extraordinary flexibility, operating with all major network operating systems and protocols:

Windows NT, Windows 95/98, Windows for Workgroups, Microsoft LAN Manager, IBM LAN Server

◆ **AppleTalk**

MacOS EtherTalk

Windows-based setup and administration software, *EtherP Admin*, is supplied with the HyperNet Fastprint, making configuration and management quick and easy. The HyperNet Fastprint also supports configuration and management via the **telnet** protocol for networks without Windows-compatible machines.

External Features

This section describes the externally visible features of the HyperNet Fastprint server.

Port Connectors

The HyperNet Fastprint's three printer ports are located on its rear panel. Two identical parallel ports are labeled LPT1 and LPT2; the single serial port is labeled COM. These printer ports are independently configurable using the *EtherP Admin* program or the print server's telnet interface. (See the *Print Server Administration User's Guide* for information about configuring the print server's ports.)

Network Cable Connector

The HyperNet Fastprint's right side panel features an RJ-45 connector for connection to 10Base-T Ethernet cabling or 100Base-TX Fast Ethernet cabling (which should be Category 5 twisted-pair cable). The port supports the NWay protocol, allowing the print server to automatically detect or negotiate the transmission speed of the network.

DC Power Connector

The DC power input connector is located on the HyperNet Fastprint's right side panel and is labeled DC 12V.

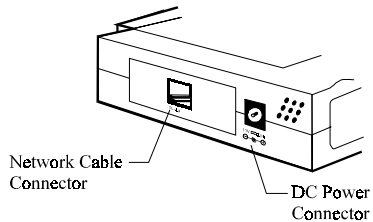


Figure 1 -2 Print Server Right Side Panel

◆ **Power/Ix**

- ◇ Steady or flashing green confirms that the HyperNet Fastprint is powered on.
- ◇ The indicator blinks off briefly to indicate that the HyperNet Fastprint is transmitting to the network.

◆ **Link/Rx**

- ◇ Steady or flashing green confirms that the HyperNet Fastprint has a good connection to the Ethernet or Fast Ethernet network.
- ◇ The indicator blinks off briefly to indicate that the HyperNet Fastprint is receiving from the network.

◆ **LPT1, LPT2, COM**

- ◇ These LED indicators light to show that the HyperNet Fastprint is transferring print data through the appropriate parallel or serial port.

These three indicators are also used by the print server's power-on self test (POST) to indicate any hardware failures.

Server

Carefully remove all items from the package. In addition to this *Hardware User's Guide*, be certain that you have:

- ◆ One HyperNet Fastprint print server
- ◆ One DC power adapter suitable for your country's electric power
- ◆ Two *EtherP Admin* software diskettes
- ◆ One *Print Server Administration User's Guide*
- ◆ Fasteners for optional wall-mounting

If any item is missing, or if you find any damage or mismatch, promptly contact your dealer for assistance.

Installing the HyperNet Fastprint

WARNING: *Configuration problems may result if the HyperNet Fastprint is powered up without first establishing its network connection. Follow this procedure to avoid complications at the configuration stage.*

4. Connect the HyperNet Fastprint to the network, using the RJ-45 (10Base-T/100Base-TX) connector on the print server's side panel.
5. While each printer is powered off, connect its tested and confirmed port to a like printer port of the HyperNet Fastprint. If you are connecting fewer than three printers, then keep in mind that parallel-port connections are preferred for high-performance printers.
6. Switch on each connected printer.
7. Plug the DC power adapter's DC output plug into the DC 12V power socket on the side panel of the HyperNet Fastprint.
8. Plug the power adapter into an electric service outlet. This will supply power to the HyperNet Fastprint, as it has no external power switch. The Power/Tx LED on the HyperNet Fastprint's front panel should light steady green, and the HyperNet Fastprint's self-test will proceed.

Power On Self-Test

When the HyperNet Fastprint is powered on, it automatically performs a self-test on each of its major components. The final result of the self-test is signaled by the state of the LPT1, LPT2, and COM LED indicators following the self-test. Preliminary to the actual component tests, the three LED indicators are tested to confirm their steady and flashing operation.

Immediately after power-up, all five of the LED's should show steady green for several seconds. Then the LPT1, LPT2, and COM LEDs should flash on

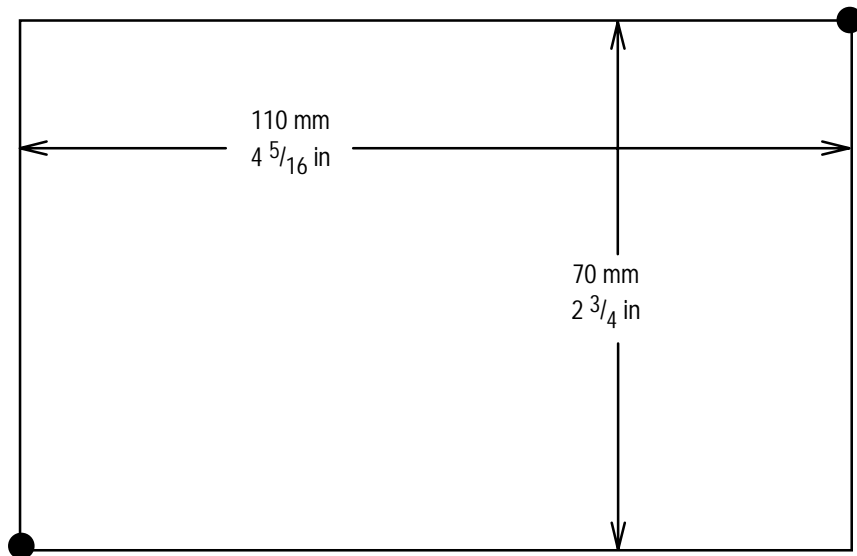
contact your dealer for correction of the faulty unit.

LED Name			Faulty Component
LPT1	LPT2	COM	
off	off	on/steady	COM error
off	off	flashing	Flash ID error
off	on/steady	off	LPT2 error
off	on/steady	on/steady	LAN Controller error
off	on/steady	flashing	LAN Memory error
off	flashing	off	Parallel-2 Controller error
off	flashing	on/steady	EEPROM error
off	flashing	flashing	Flash Protected
on/steady	off	off	LPT1 error
on/steady	off	on/steady	Timer INT error
on/steady	off	flashing	LAN IO Base error
on/steady	on/steady	off	RAM error
flashing	off	off	Parallel-1 Controller error
flashing	flashing	off	Flash erase/program error
flashing	flashing	flashing	Need to reload firmware

Testing Your HyperNet Fastprint

The *EtherP Admin* software includes a Print Test function for confirmation of printer cable connections and functions. That operational test can be

To mount the HyperNet Fastprint with the front panel facing up (and the printer port connectors facing down), set the two mounting screws at the lower-left and upper-right corners of a rectangle as shown below (actual size):



When setting the screws into the wall or partition, leave about 3 mm (1/8 in) between the head of each screw and the wall surface. Then place the HyperNet Fastprint so that the mounting sockets on the bottom of its case fit over the two screws. Press the case gently toward the wall and slide the case

Ports: Bi-directional 25-pin parallel ports × 2, 9-pin DTE serial port × 1

Parallel Port Bi-directional Communication: Hewlett-Packard PJI (Printer Job Language) supported

Network Connection

Network Standards: IEEE 802.3 10Base-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet

Network Data Transfer Rate: 10/100Mbps

Network Connector: RJ-45 connector for 10Base-T or 100BASE-TX unshielded twisted pair connection; NWay automatic speed negotiation supported.

Network Protocols

Ethernet Frame Types: 802.2, 802.3, Ethernet II, SNAP (auto-switching)

Transport Protocols: IPX/SPX, TCP/IP, NetBEUI, AppleTalk/EtherTalk

TCP/IP Protocols Supported: BOOTP, SNMP, Telnet, TFTP, FTP, lpd

Power Supply: External power supply providing 12VDC/ 500mA

Dimensions: 190mm × 116.8mm × 30.9mm

Weight: approx. 360g

Operating Temperature: 0 to 50°C

Storage Temperature: -10 to 50°C

Humidity: 10% to 90% non-condensing

Emissions: FCC Class A, CISPR 22 Class A, VCCI Class 1, AS/NZS 3548:1995 Class A

Safety: UL (UL 1950), CSA (CSA950), TUV/GS (EN60950)

B

Port Pinouts

This appendix shows the pinouts of the HyperNet Fastprint parallel and serial printer ports.

2	2	Data 1	Bi-directional
3	3	Data 2	Bi-directional
4	4	Data 3	Bi-directional
5	5	Data 4	Bi-directional
6	6	Data 5	Bi-directional
7	7	Data 6	Bi-directional
8	8	Data 7	Bi-directional
9	9	Data 8	Bi-directional
10	10	nAck	Printer
11	11	Busy	Printer
12	12	PError	Printer
13	13	Select	Printer
14	14	nAutoFd	Host
15	32	nFault	Printer
16	31	nInit	Host
17	36	nSelectIn	Host
18-25	16, 17, 19-30	Ground	

Serial Port

The table below shows the pinout of the print server's 9-pin RS-232 serial port. The print server's serial port is a DTE (Data Terminal Equipment) port, and should be connected to a DCE (Data Communications Equipment) serial port on your printer. Consult your printer's documentation for detailed information on how to connect the print server to your printer.

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LPT1 LED.....	5, 9	telnet	2
LPT2	3	wall mounting	10
LPT2 LED.....	5, 9	wall-mounting	6
network connectors	3		